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2 **ABSTRACT OF THE DISCLOSURE**

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4 A system for providing motion compensation of a platform attached to an ocean floor.

5 The platform is operatively associated with a riser extending from a subterranean well. The

6 system comprises a frame member positioned on the platform and a deck slidably attached to the

7 frame member, and wherein the deck is attached to the riser. The system further comprises a

8 moving device for moving the frame member relative to the deck. In one of the preferred

9 embodiments, the frame member contains a plurality of guide post and wherein the deck is

10 slidably mounted on the guide post so that the frame member is movable relative to the deck. The

11 moving device may comprise a cylinder member operatively attached to the frame member and a

12 piston operatively attached to the deck and wherein the system further comprises a pressurized

13 recharging vessel configured to direct a pneumatic supply to the cylinder member, and a gas

14 delivery mechanism for keeping the cylinder member within a pressure range. A method of

15 compensating for movement on an offshore platform during well operations is also disclosed.